## Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of:	)	
Preventing Interference in Public Safety Frequencies By Requiring H Mask And Mutual Aid for Digital Technologies	)	RM No. 11663
	,	

# REPLY COMMENTS OF THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL

The National Public Safety Telecommunications Council (NPSTC) submits these Reply Comments in response to the Commission Public Notice in the above-captioned proceeding. In these Reply Comments, NPSTC recommends the Commission expeditiously clarify the need for the tighter "H-mask" in the NPSPAC spectrum and continue to apply the existing mutual aid channel requirements for mobiles/portables that operate in the NPSPAC band.

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<sup>&</sup>lt;sup>1</sup> In the Matter of: Preventing Interference in Public Safety Frequencies By Requiring H Mask and Mutual Aid for Digital Technologies, *Petition for Rulemaking*, RM No. 11663, submitted April 30, 2012 and placed on Public Notice May 31, 2012.

### **The National Public Safety Telecommunications Council**

The National Public Safety Telecommunications Council is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 15 organizations participate in NPSTC:

American Association of State Highway and Transportation Officials

American Radio Relay League

Association of Fish and Wildlife Agencies

Association of Public-Safety Communications Officials-International

Forestry Conservation Communications Association

International Association of Chiefs of Police

International Association of Emergency Managers

International Association of Fire Chiefs

International Municipal Signal Association

National Association of State Chief Information Officers

National Association of State Emergency Medical Services Officials

National Association of State Foresters

National Association of State Technology Directors

National Emergency Number Association

National Sheriffs' Association

Several federal agencies are liaison members of NPSTC. These include the Department of Homeland Security (the Federal Emergency Management Agency, the Office of Emergency

Communications, the Office of Interoperability and Compatibility, and the SAFECOM Program;

Department of Commerce (National Telecommunications and Information Administration);

Department of the Interior; and the Department of Justice (National Institute of Justice, CommTech

Program). NPSTC has liaison relationships with associate members, the Telecommunications

Industry Association, the Canadian Interoperability Technology Interest Group, the National

Council of Statewide Interoperability Coordinators and the Utilities Telecom Council.

## **Background**

The Commission recently released a Public Notice seeking comment on a Petition for Rulemaking filed by the Harris Corporation regarding emission masks and interoperability channels. Specifically, Harris Corporation requested the Commission initiate a rulemaking to:

- 1) Require, on a technology-neutral basis, digitally-modulated signals be certified under the H-Mask for use in public safety spectrum;
- 2) Pending final resolution of this rulemaking, prohibit any digital technology not meeting the H-Mask emissions requirements from operating in public safety spectrum; and
- 3) Adopt equipment certification "technical" mandates for operation on the mutual aid channels designated in §90.203(i) and §90.203(j)(1).

Pending the outcome of the requested rulemaking, the petition also requests an immediate freeze on certification of any non-H Mask-conforming digital technologies and on certification of any equipment not having compatible emission designators for operation on mutual aid channels.

Five parties responded to the Public Notice.<sup>2</sup> Alcatel-Lucent opposes the Petition for Rulemaking as "unnecessary, repetitive and anticompetitive" and states the Petition is a "collateral attack by Harris on NJT's selection of Alcatel-Lucent's proposal to meet the communications needs

<sup>&</sup>lt;sup>2</sup> Opposition of Alcatel-Lucent (July 2, 2012), Comments of Harris Corporation (July 2, 2012), Comments of Motorola Solutions, Inc. (July 2, 2012), Response by PowerTrunk (June 28, 2012) and Response by Richard J. Nielson, PE (undated but received by FCC on June 27, 2012)

of NJT using PowerTrunk's digital land mobile radio ("D-LMR") solution in the 800 MHz band."<sup>3</sup> Motorola Solutions, Inc. (MSI) states that the Petition "raises issues deserving of Commission consideration but questions whether a new rulemaking proceeding is necessary." MSI comments that there is some confusion about the mask issue on the NPSPAC channels, notes that the rules are clear regarding mutual aid requirements for NPSPAC and opposes the freeze requested by Harris. MSI also states "it would be more efficient to resolve these issues in WT Docket No. 11-69 as opposed to issuing a new Notice of Proposed Rulemaking."<sup>4</sup>

New Jersey Transit Corporation's comments state that the Petition "is unnecessary and it promotes a commercial barrier to well-established, spectrally-efficient, affordable digital radio technology that has been successfully deployed world-wide without causing harmful interference to legacy systems." It also states "The Commission should consider the distinction between public safety pool eligible vs. public safety first-responder roles when applying requirements for mutual aid/interoperability capabilities." Richard J. Nielson's response states that "We have been operating and testing a TETRA system for over a year now and have not had any type of interference encountered with the system." PowerTrunk opposes the petition as repetitive and an effort to gain competitive advantage. Regarding NPSPAC mutual aid capability, PowerTrunk also indicates the modulation it uses and some digital integrated circuitry available that can generate various digital and analog waveforms, including analog FM.

<sup>&</sup>lt;sup>3</sup> Opposition of Alcatel-Lucent at page 1.

<sup>&</sup>lt;sup>4</sup> MSI Comments at page 4.

<sup>&</sup>lt;sup>5</sup> New Jersey Transit Corporation comments at page 1.

<sup>&</sup>lt;sup>6</sup> New Jersey Transit Corporation comments at page 3.

<sup>&</sup>lt;sup>7</sup> Response by Richard J. Nielson, PE (single page).

<sup>&</sup>lt;sup>8</sup> PowerTrunk Response at page 2.

<sup>&</sup>lt;sup>9</sup> PowerTrunk Response at page 5.

#### **NPSTC Comments**

NPSTC has no interest in either specifically supporting or opposing a licensee's selection of any given manufacturer's equipment. Our primary interest in the instant proceeding is preventing interference in the public safety channels, especially the 800 MHz NPSPAC band and ensuring that any introduction of TETRA meets established rules and policies for public safety interoperability.

As noted in NPSTC's previous comments, interference potential is affected both by the technology and the spectrum environment in which it is introduced. The NPSPAC portion of the 800 MHz band is a unique spectrum environment. In the NPSPAC portion of the band, channel centers are spaced every 12.5 kHz, while channels themselves are nominally 25 kHz wide. When the Commission adopted rules for the NPSPAC channels, it required reduced transmitter deviation, compared to that used for standard 25 kHz channel equipment.

Regional planning in the NPSPAC channels, based in part on prevalent equipment parameters such as reduced deviation or occupied bandwidth, incorporates geographic spacing between adjacent channels to minimize interference. At minimum, NPSTC believes that TETRA equipment deployed in the NPSPAC channels under the pre-existing adjacent channel separations addressed in current regional plans have a high potential to increase adjacent channel interference and further limit existing licensees' abilities to change or add locations going forward. Given this environment, NPSTC supports application of the tighter "H-mask" in the NPSPAC channels. 11

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<sup>&</sup>lt;sup>10</sup> Originally, the NPSPAC channels were located in the 821-824/866-869 MHz portion of the band. However, due to 800 MHz rebanding, the NPSPAC channels were relocated to 806–809/851–854 MHz. The transition of systems to the revised NPSPAC band segments is still ongoing.

<sup>&</sup>lt;sup>11</sup> The Harris Corporation Petition for Rulemaking appears to request that the tighter mask be applied to all public safety spectrum. NPSTC believes application of the tighter "H" mask is necessary only in the NPSPAC channels.

Because of historical issues with interoperability, Commission rules for the NPSPAC portion of the 800 MHz band established five mutual aid interoperability channels and require equipment certified and marketed for public safety operation to have the capability to be programmed on those mutual aid channels. Further, the rules require that the NPSPAC channels be assigned in accordance with policies defined in the Report and Order of Gen. Docket No. 87–112 and also reference the provisions of that proceeding in defining operations on the 5 mutual aid NPSPAC channels. Notwithstanding PowerTrunk's comments regarding chipset capabilities, NPSTC is unaware of any commercially available radios that provide dual mode TETRA and conventional analog FM voice capability, which would be needed to meet mutual aid interoperability on the NPSPAC channels.

NPSTC notes that New Jersey Transit Corporation requested and received a waiver of the rules to exchange its NPSPAC channels for alternative Sprint-Nextel vacated channels in the interleaved portion of the 800 MHz band for deployment of a TETRA system.<sup>13</sup> Therefore, requirements for TETRA to meet the current mutual aid requirements that has been applied to other radio equipment in the NPSPAC channels and the tighter mask traditionally being applied should have no impact on the New Jersey Transit Corporation system.

NPSTC believes these issues can be addressed in a new rulemaking as suggested by Harris Corporation or in the current rulemaking in WT Docket No. 11-69 as recommended by MSI. However, we do agree that addressing the issues in WT Docket. No. 11-69 may lead to faster decision-making. The process of advancing issues from a petition for rulemaking to a follow-up notice of proposed rulemaking and then to a final decision can typically span a multi-year timeframe.

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<sup>&</sup>lt;sup>12</sup> See 47 CFR §90.203(i) and §90.617(a)(1).

<sup>&</sup>lt;sup>13</sup> New Jersey Transit Corporation "Request for Waiver Nextel Vacated Frequencies" <a href="https://wireless2.fcc.gov/UlsEntry/attachments/attachmentViewRD.jsp;ATTACHMENTS=ThRrP76FBldXsQngLSp3CqjpSBW0SBSJprSTyTy2TN6nynwP117Q!380228951!-">https://wireless2.fcc.gov/UlsEntry/attachments/attachmentViewRD.jsp;ATTACHMENTS=ThRrP76FBldXsQngLSp3CqjpSBW0SBSJprSTyTy2TN6nynwP117Q!380228951!-</a>

<sup>2129169781?</sup>applType=search&fileKey=1708118627&attachmentKey=18907038&attachmentInd=applAttach. FCC Waiver grant dated May 18, 2012:

 $<sup>\</sup>underline{https://wireless2.fcc.gov/UlsEntry/attachments/attachmentViewRD.jsp?applType=search\&fileKey=1982100019\&attachmentKey=18907976\&attachmentInd=applAttach$ 

Accordingly, NPSTC urges the Commission to address the issues expeditiously under the current

rulemaking if possible. Finally, NPSTC opposes a freeze on certification of digital radios on all

public safety frequencies that do not meet the H mask, as requested in the Petition. Traditionally, the

H mask has only been applied in the NPSPAC channels, not to all public safety frequencies. Further,

NPSTC's experience is that freezes imposed by the Commission invariably result in difficulties for

public safety users that may be unintentional, but nonetheless exist.

Conclusion

In summary, NPSTC recommends the Commission expeditiously clarify the need for the

tighter "H-mask" in the NPSPAC spectrum and continue to apply the existing mutual aid channel

requirements for mobiles/portables that operate in the NPSPAC band.

Respectfully submitted,

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